

Table 8. Conceptual Hydrologic Water Budget (2003) Prescott AMA

(Figures rounded to nearest 10 acre-feet)

Groundwater Inflows	2003 Volume (acre-feet)
Natural Recharge (1)	6,600
Incidental Recharge (2)	2,020
Artificial Recharge:	
(City of Prescott) (3)	3,480
(Prescott Valley) (4)	1,740
Total Inflows	13,840
Groundwater Outflows	
Groundwater Pumpage:	
Non-Exempt (5)	19,160
Exempt (6)	1,830
Groundwater Discharge:	
Underflow to Big Chino (7)	1,800
Del Rio Springs Discharge (8)	1,050
Agua Fria Baseflow near Humboldt (9)	1,300
Total Outflows	25,140
Inflow – Outflow = (Change-in-Groundwater Storage)	11,300

- 1) Estimate for long-term average annual mountain front recharge (Nelson, 2002, pg. 10). Actual annual volumes may vary significantly from the long-term average. Plus recharge from 2003 Granite Creek Spill below Watson Lake (USGS streamgauging station (09503300) = 850 AF.
- 2) Estimated at 50% agricultural water use for 2003 (Corkhill, and Mason, 1995, pg. 58), (Nelson, 2002, pg. 10).
- 3) Includes recharge of treated effluent and surface water, as reported in 2003 - City of Prescott Annual Underground Storage Facility Report-Schedule 73.
- 4) Includes recharge of treated effluent, as reported in 2003 – Town of Prescott Valley Annual Underground Storage facility report-Schedule 71.
- 5) ADWR Registry of Groundwater Rights database.
- 6) Estimated domestic and exempt well pumpage in Prescott AMA groundwater basin area only. 1,425 AF/yr of additional domestic well pumpage estimated for surrounding mountainous area (see pumpage section of this report for further details).
- 7) ADWR model simulated underflow to Big Chino in 1999 (Nelson, 2002, pg. 14, Table 5).
- 8) USGS 2003 annual discharge at Del Rio Springs gage (09502900). Note! Unquantified diversions of groundwater discharged from the cienega above the USGS Del Rio Springs gage are not reflected in the gage's annual total. Also a minor, unquantified volume of groundwater supports a small riparian area in the immediate area of the springs. For comparison purposes, the 1999 ADWR- model simulated groundwater discharge including undifferentiated ET component at Del Rio Springs = 1,800 AF/yr (Nelson, 2002, pg. 14, Table 5).
- 9) USGS 2003 annual discharge at the Agua Fria gage near Humboldt (09512450). Annual discharge reduced to account for significant surface water runoff. For comparison purposes, the 1999 ADWR – model simulated groundwater discharge including a minor undifferentiated ET component to Agua Fria River near Humboldt = 1,400 AF/yr (Nelson, 2002, pg. 14, Table 5).